Introduction

The 2006 VLAP Sampling Season
The Volunteer Lake Assessment Program (VLAP) set a new participation record again this season. A total of 164 lakes were sampled and approximately 450 volunteer monitors participated in the program!

We extend a special welcome to the volunteer monitoring groups that joined VLAP for the first time this year. These volunteers represent the following waterbodies: Country Pond in Newton, Dinsmore Pond in Sandwich, Dodge Pond in Lyman, Duck Pond in Freedom, Horseshoe Pond in Canterbury, Hunkins Pond in Sanbornton, Lyford Pond in Canterbury, Moores Pond in Tamworth, and Round Pond in Lyman.

And, we welcome back our friends and new monitors at Emerson Pond in Jaffrey, Long Pond in Pelham, Norway Pond in Hancock, and Pecker Pond in Jaffrey, who rejoined VLAP during the 2006 season.

2006 Weather Conditions in New Hampshire
During May 2006, New Hampshire received a record amount of rainfall, resulting in excessive soil erosion in most watersheds and increased nutrient loading to surface waters throughout the state. In addition, several significant rain events occurred in June throughout state. As a result, high water levels and turbid water were measured in many lakes throughout June and July. The last week of July and the first week of August were unseasonably hot and most surface waters reached their maximum summer temperatures, many approaching 85 degrees Fahrenheit!

Unfortunately, in at least six lakes, the increased phosphorus load and warm summer water temperatures combined to cause significant cyanobacteria blooms throughout most of the summer.

August and September were relatively dry, resulting in lower water levels and deeper, more typical deep spot transparency readings in most lakes.

2006 Program Updates
On the annual biologist visit during the Summer of 2005 and 2006, the biologist helped each monitoring group collect Secchi disk transparency readings with and without the use of a viewscope, a white plastic PVC pipe with a clear plexiglass end. A comparison of the transparency readings taken with and without the use of a viewscope shows that the viewscope typically increases the depth to which the Secchi disk can be seen into the lake, particularly on sunny and windy days. Ultimately, we would like all monitoring groups to use a viewscope to take Secchi disk readings as the use of the viewscope results in less variability in transparency readings between monitors and sampling events. Unfortunately, since the majority of the groups participating in VLAP did not use a viewscope when they started sampling, suddenly switching to using only the viewscope would make it difficult to conduct long-term transparency trend analysis. Therefore, we ask that all groups take Secchi disk readings with and without the

use of a viewscope for a period of several years. At some point in the future, when we have sufficient data to determine a statistical relationship between transparency readings collected with and without the use of a viewscope, it may only be necessary to collect transparency readings with the use of a viewscope.

2006 Report Updates
The 2006 annual report format has been updated to include Figure 2a and Table 3a (Secchi disk Transparency Without the Use of a Viewscope) and Figure 2b and Table 3b (Secchi disk Transparency With the Use of a Viewscope). Also, for groups that conduct nitrogen sampling, Tables 7a (Historic Total Kjeldahl Nitrogen), 7b (Historic Nitrite/ Nitrate Nitrogen), and 14a (Current Year Raw Nitrogen Data) have been added to the annual report.

Concluding Remarks
Please carerfully read the "Observations and Recommendations" and "Data Quality Assessment and Quality Control" sections of your report, and pay special attention to the suggestions that we have made to improve lake quality and your current sampling program.

This year's Special Topic Article "Perched Beaches Protect and Improve Lake Quality" is found in Appendix D. Owners of waterfront property sometimes want to add a sandy beach for recreational enjoyment. Unfortunately, sand negatively affects lake quality and aquatic habitat. Please read this article to learn how a perched beach can provide for recreational enjoyment without harming the lake. Even if you don't plan on adding a beach to your lakefront, or aren't interested in retrofitting your old conventional beach into a perched beach, please pass this article along to your lake association and town officials as sand deposition into New Hampshire's lakes is a leading cause of lake quality degradation and hastens the lake filling-in process.

We realize that there is a lot of information presented in the following pages. If you have any questions regarding your 2006 report, please give the VLAP Coordinator a call. And finally, please contact the VLAP Coordinator this spring to schedule the annual biologist lake visit or to schedule a summer lake association meeting speaker.

Sincerely,

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